# Visualizing Educational Data

Summer Data Manager Meeting
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## 1. Data Format:

The data need to be in a format that Tableau can read. The best format is columns with field names and associated values. These data can be from different RIDE Databases and are usually student level data.

| Disability Name | |
|---|---|
| Autism | 2,671 |
| Deaf-blindness | 4 |
| Developmental delay | 2,986 |
| Emotional disturbance | 1,616 |
| Hearing impairment | 162 |
| Intellectual disability | 880 |
| Multiple disabilities | 442 |
| Orthopedic impairment | 42 |
| Other health impairment | 4,091 |
| Specific learning disability | 7,619 |
| Speech or language impairment | 3,935 |
| Traumatic brain injury | 55 |
| Visual impairment | 45 |
| No Disability | 121,813 |

## 2. Data Linking:

This is an example of how different RIDE data sets may be linked within Tableau.

Tableau can read a variety of data types (SQL databases, Excel, comma delimited files, even spatial data).

To simply the data extraction for Tableau to use, often data "Views" are made for specific visualization projects.
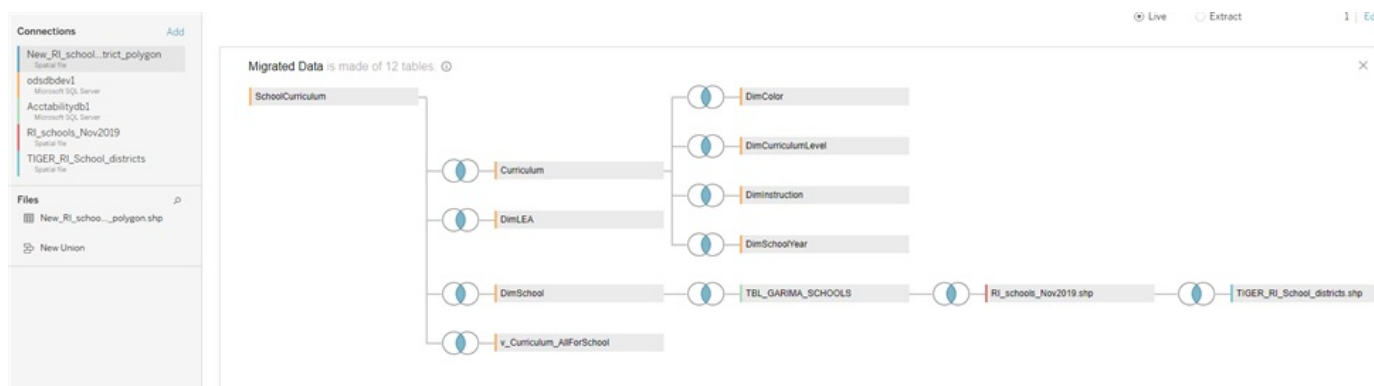
## 3. Data View:

DATS staff (such as Betty Landry) will query the different RIDE databases to create a "view" that has only the fields necessary for the requested graphs, thus making it easier to graph. The creation of the "view" is a collaborative effort among DATS staff, the requesting program office, and/or stakeholders.

## 4. Graphing Data:

Once the data are either linked or queried in a view, they can be graphed.

To graph, a "Dimension" or categorical variable is selected, in this case "Disability Name" is put on "Rows" &  a numerical field or "Measure" such as "Student Count" is put on the Columns to create a chart

**Disability Name**

Autism
Deaf-blindness
Developmental delay
Emotional disturbance
Hearing impairment
Intellectual disability
Multiple disabilities
Orthopedic impairment
Other health impairment
Specific learning disability
Speech or language impai..
Traumatic brain injury
Visual impairment
No Disability

0K   10K   20K   30K   40K   50K   60K   70K   80K   90K   100K   110K   120K

Student Count

## 5. Customizing Charts:

Charts can be customized by adding filters, adding labels, editing axis-titles, and displaying data as a percentages. Data can also be dis-aggregated by other variables. Details can be viewed in the tooltip hover.

**Race/Ethnicity**
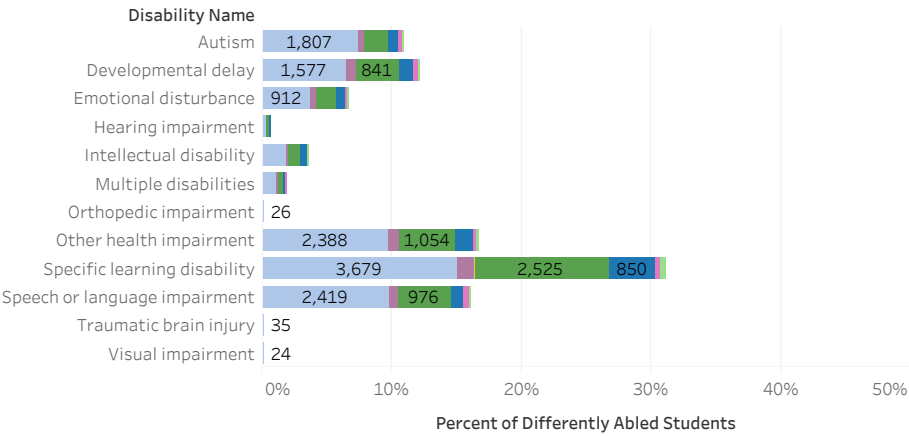- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic
- Native Hawaiian or Other Pacific Islander
- Two or More Races
- White

**Disability Name**

| Disability Name | Values |
|---|---|
| Autism | 1,807 |
| Developmental delay | 1,577 · 841 |
| Emotional disturbance | 912 |
| Hearing impairment | |
| Intellectual disability | |
| Multiple disabilities | |
| Orthopedic impairment | 26 |
| Other health impairment | 2,388 · 1,054 |
| Specific learning disability | 3,679 · 2,525 · 850 |
| Speech or language impairment | 2,419 · 976 |
| Traumatic brain injury | 35 |
| Visual impairment | 24 |

0%  10%  20%  30%  40%  50%

Percent of Differently Abled Students
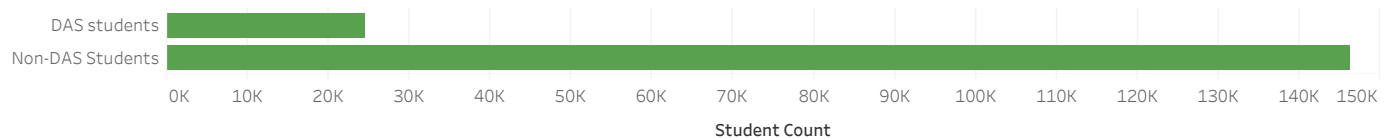
## 6. Combining Elements:

In Dashboards, you can combine different charts as well as other items such as images, logos, and text objects. A series of Dashboards can be combined into a Story.
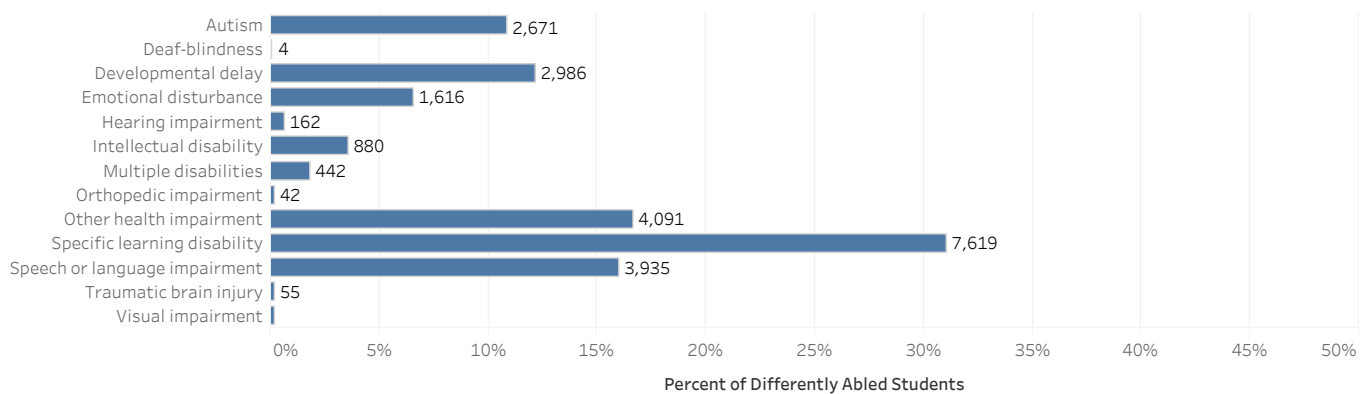
### 2019-20, Differently Abled Students (DAS) Statewide (n=24,548)



### 2019-20, Differently Abled Students by disability (student counts after bars) NOTE: This includes all DAS students, including those in private schools and correctional facilities.

## 7. Sharing Information:

**Tableau Dashboards or Stories can be published to a website so others can view them.**

← Explore / External UAT / FINAL_DAS_BluePrint_Meeting_1 / FINAL_DAS BluePrint Story Mtg 1  ☆        🗇  |  Q  🗒★  ⑦  🔔  JN

← Undo   → Redo   |← Revert   🔁 Refresh   ⏸ Pause                    📊 View: Original   ∝° Share   ⬇ Download   💬 Comme

# Differently Abled Students (DAS) BluePrint - Demographics

| Introduction | Overview of Primary Disabilities | Overview by Grade Groups | Overview by Race/Ethnicity | Overview by Lunch Status, Statewide vs DAS | Overview by MLL Status |

**RIDE** Rhode Island Department of Education

### Differently Abled Students (DAS) Summary
*Demographic Overview*

The Rhode Island Department of Education has made this set of visualizations available as part of its **Blueprint for Differently Abled Students (DAS)**. All visualizations contain data from 2019-2020 (grades 12, except where noted). Please review the demographic and performance story points to find dashboar of interest. *Note: For best view, click "full screen" icon in lower right corner of screen.*

*Demographic Data*